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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,390	04/14/2004	Jinsuo Xu	1094-52	6411

28249 7590 02/06/2007  
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EXAMINER

NGUYEN, CAM N

ART UNIT	PAPER NUMBER
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1754

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/06/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/824,390

Applicant(s)

XU ET AL.

Examiner

Cam N. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/12/06 (an election).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 18-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/30/04 &amp; 11/03/05/</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION****Response to Election/Restriction**

1. Applicant's election with traverse of Group I, claims 1-17, in the reply filed on October 12, 2006 is acknowledged. The traversal is on the ground(s) that "To perform satisfactory search of one group of claims would require a search of the other group as well. Therefore, there would be no undue burden upon the Examiner to search both groups of claims." (applicants' response on page 2, first paragraph). This is not found persuasive because of the following reasons. The search required for Group I invention is not required for Group II invention. Thus, if both groups are searched, an additional burden is imposed on the Office due to two different search areas being required. As indicated in the restriction requirement that Group II invention is drawn to "a hydrocarbon conversion process using a catalyst", which is classified in a different classification. The catalyst of Group I can be used in a materially different process, such as in the purification of automotive exhaust gases from an internal combustion engine, such as treatment or removal of exhaust gases as classified in class/subclass 423/210+. Second, applicants' argued "It is not clear exactly what type of purification is meant. If the purification of exhaust gases referred to in the Office Action is concerned the conversion of hydrocarbons it would fall within the scope of Claim 18 and would not be a materially different process..."
- Applicants are referred to classification manual class/subclass 423/210+ regarding processes of purification, treatment and removal of automotive exhaust gases from an internal combustion engine using the claimed metal oxide containing catalyst. The purification of internal combustion engine exhaust gases is not the same as the hydrocarbon conversion processing.

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Thus, it would not fall within the scope of Claim 18 as applicants argued. However, should the elected product claims are found allowable, the nonelected process claims will be rejoined in accord with the MPEP rule.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 18-22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention(s), there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on October 12, 2006.

**Information Disclosure Statement**

3. The document 2003/0069131 to Ying et al. cited on PTO-1449 filed on November 03, 2005 was not considered because it is a duplicate of the document cited on PTO-1449 filed on July 30, 2004.

**Claim Rejections - 35 USC § 102(e)**

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claims 1-4 & 7-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Fu et al., "hereinafter referred to as Fu", (US Pat. 7,125,536 B2).

Fu discloses a catalyst, which comprised of a composition comprised of nano-structured metal oxide particles and at least one stabilizing agent, etc., wherein said stabilizing agent is selected from the group consisting of silicate, phosphate, and aluminum phosphate, and at least one active ingredient selected from the group consisting of sulfates, vanadates, molybdates, tungstates, silica, alumina, metal oxides, metal salts and metals (see col. 14, claims 1 & 6). The nano-structured metal oxide particles comprise at least one oxide selected from the group consisting of zirconia, hafnia, titania, tin oxide, ceria, niobium oxide or tantalum oxide (see col. 14, claim 2 & col. 15, claim 9). Fumed SiO<sub>2</sub> (5 mole % of zirconia) is exemplified in Example 1 at col. 11.

There is no patentable distinction is seen between the claimed catalyst and that disclosed by Fu. Thus, the claims are anticipated by the teaching of the reference.

**Claim Rejections - 35 USC § 103**

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5 & 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fu et al., "hereinafter referred to as Fu", (US Pat. 7,125,536 B2), as applied to claims 1-4 & 7-17 above, and further in view of Soled et al., "hereinafter referred to as Soled", (US Pat. 5,422,327).

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Fu discloses a catalyst as described above, except for the Group VIII metals.

It would have been *prima facie obvious* to one of ordinary skill in the art at time the invention was made to have added such known Group VIII metals into the catalyst of Fu in order to achieve an effective catalyst because they are known as useful catalytically active metals, as evidenced by Soled (see Soled at col. 4, claims 1-5).

#### Citations

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. All references are cited for related art. See PTO-892 Form prepared attached.

#### Conclusion

9. Claims 1-22 are pending. Claims 1-17 are rejected. Claims 18-22 are withdrawn due to nonelected (distinct) invention(s). No claims are allowed.

#### Contacts

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Cam N Nguyen, whose telephone number is 571-272-1357. The examiner can normally be reached on M-F, 9:00 AM - 6:30 PM, at alternative work site.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Cam N. Nguyen/

Nguyen/cnn

Primary Examiner

December 20, 2006

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